

Notice of Allowability

Application No.

10/772,915

Examiner

Jeff Wollschlager

Applicant(s)

NIEMAN ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the interviews of 26 February 2007 and 5 March 2007.
2. ☒ The allowed claim(s) is/are 1-5, 7-12 and 14-16.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 20070306.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20070306</u> |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Todd Wight on March 5, 2007.

The application has been amended as follows:

Claims 6 and 13 have been canceled.

Claim 1 (currently amended): A method for producing a high density microwall (HDM) expanded polytetrafluoroethylene (ePTFE) structure, comprising the steps of:

providing an ePTFE tube having a first inner diameter;
radially expanding said ePTFE tube to form a radially expanded tube having a second inner diameter greater than said first inner diameter;
calendering said radially expanded tube while maintaining said second inner diameter substantially constant to form a calendered tube; and
heating said calendered tube above the crystalline melt-point for polytetrafluoroethylene while maintaining said second inner diameter substantially constant to form said HDM ePTFE structure[.], wherein said calendering step further comprises the steps of:

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positioning said radially expanded tube over a cylindrical mandrel having an outer diameter approximately equal to said second inner diameter to form a loaded mandrel;

placing said loaded mandrel between a first metallic plate and a second metallic plate, wherein said first metallic plate is maintained in a substantially parallel position with respect to said second metallic plate;

applying a force to said first metallic plate, wherein said loaded mandrel is compressed between said first and second metallic plates, and wherein said radially expanded tube is contacted by both of said first and second metallic plates during the applying step; and

moving said second metallic plate in reciprocal fashion along a direction perpendicular to the central axis of said loaded mandrel while said first plate is held stationary under a constant load.

Claim 7, line 1, replaced "claim 6" with - - claim 1 - - .

Claim 8, line 1, replaced "claim 6" with - - claim 1 - - .

Claim 9 (currently amended): A method for producing a high density microwall (HDM) expanded polytetrafluoroethylene (ePTFE) structure, comprising the steps of:
providing a non-radially expanded ePTFE tube having an extruded first inner diameter;

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calendering said ePTFE tube while maintaining said first inner diameter substantially constant to form a calendered tube; and heating said calendered tube above the crystalline melt-point for polytetrafluoroethylene while maintaining said first inner diameter substantially constant to form said HDM ePTFE structure [.] wherein said calendering step further comprises the steps of:

positioning said ePTFE tube over a cylindrical mandrel having an outer diameter approximately equal to said first inner diameter to form a loaded mandrel;

placing said loaded mandrel between a first metallic plate and a second metallic plate, wherein said first metallic plate is maintained in a substantially parallel position with respect to said second metallic plate;

applying a force to said first metallic plate, wherein said loaded mandrel is compressed between said first and second metallic plates, and wherein said non-radially expanded tube is contacted by both of said first and second metallic plates during the applying step; and

moving said second metallic plate in reciprocal fashion along a direction perpendicular to the central axis of said loaded mandrel while said first plate is held stationary under a constant load.

Claim 14, line 1, replaced "claim 13" with - - claim 9 - - .

Claim 15, line 1, replaced "claim 13" with - - claim 9 - - .

The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Element numbers (100), (110), (112) and (114), as described in the specification, are to be added to Figure 2. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

Claims 1-5, 7-12 and 14-16 are allowed. The following is an examiner's statement of reasons for allowance: The prior art of record does not teach or suggest calendering an ePTFE tube as claimed in combination with the other features instantly claimed.

The examiner regards Colone et al. (U.S. 6,187,054) as the closest prior art. Colone et al. describe the basic claimed process for producing a high density microwall expanded polytetrafluoroethylene tube, but do not teach or suggest a calendering step as claimed wherein the expanded tube is contacted by both a first and second metallic plate during the applying step.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Wollschlager whose telephone number is 571-272-

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8937. The examiner can normally be reached on Monday - Thursday 7:00 - 4:45, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JW
Jeff Wollschlager
Examiner
Art Unit 1732

March 6, 2007

ck
CHRISTINA JOHNSON
SUPERVISORY PATENT EXAMINER
3/9/07